

Soil Conservation and Erosion Prevention

Reduce Sediment and Erosion in Construction and Development

Target(s):

Continue to require soil conservation and erosion prevention Best Management Practices (BMPs) in all construction and development that is over an acre or is a common plan of development.

Lincoln Now:

Earthwork and construction action disturbs soil and creates blowing dust and sediment. Runoff from construction site activity often flows into streets, gutters, inlets, then through drainage ways into area waterways. If a site is poorly managed, sediment and waste runoff from construction sites can be deposited on adjacent property, drainage ways, and stormwater holding basins. In many cases it is extremely expensive to remove these sediment deposits. Experience has shown that it is much more cost effective to install and maintain adequate erosion and sediment control measures up front.

Current local, state and federal statutes require that all land disturbances one acre or greater or that are part of a larger common plan of development obtain a local erosion and sediment control permit. All construction activities one acre or larger must obtain permit coverage. Construction activities less than one acre must also obtain coverage if they are part of a larger common plan of development or sale. City staff, with assistance from the Lower Platte South Natural Resources District, are responsible for inspecting permitted construction sites. On a typical year there are over 400 inspections, several letters of enforcement written and where applicable enforcement actions in county court. One or more educational events or held for contractors, builders, developers and/or engineers every year regarding sediment and erosion control.

Soil management, whether by managing existing soils, or amending soil with supplemental materials to facilitate stormwater infiltration and treatment, is essential for the success of nearly all soil conservation. Essentially, retaining the natural soil structure where possible is the preferred approach for soil management. Soil that provides adequate infiltration will filter more than 90 percent of pollutants, 100 percent of sediments, and substantially reduce surface runoff. Soil management is most effective with native vegetation cover to stabilize soils and reduce erosion.

Establishing final stabilization on projects can be achieved in a number of different ways. These can be generally be referred to as Best Management Practices (BMPS) in soil conservation and erosion control. Vegetation establishment is the key component in providing erosion control. Use of perennial, native grasses in landscaping aids in erosion control and storm water retention. Erosion control blankets are applied after seeding. They are commonly used on slopes and concentrated flow areas. They serve not only as an erosion control method but also as a mulch application for retaining soil moisture. Rain gardens also reduce erosion and retain storm water. Silt fences also control sediment, along with straw wattles and compost barrels. Other sediment control BMPs include washouts and vehicle tracking pads.